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# ■ The Cochrane Collaboration Back Review Group for Spinal Disorders

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and the Back Review Group Editorial Board‡

What works and what does not work in the treatment of back pain? What is the evidence? How strong is this evidence? The number of published studies on the management of back pain has increased exponentially during the past 10 years. How can busy clinicians distill this evidence and sort out the good from the bad? Traditionally, clinicians have relied on authoritative reviews to guide clinical practice. Unfortunately, important biases may occur in the usual review process<sup>1</sup> that can result in misleading recommendations. The use of a systematic approach based on available methodologic criteria can protect against such biases and should be adhered to in the selection of articles for review, the assessment of their quality, and the synthesis of this evidence. Preparing and maintaining a systematic review is a considerable task that requires time, effort, and financial support. In this article, we describe a new international initiative to coordinate ongoing reviews of the literature on the management of back and neck pain under the umbrella of the Cochrane Collaboration.

## ■ The Cochrane Collaboration

The Cochrane Collaboration was established in England in 1992 to promote the systematic collection, review, and synthesis of literature.<sup>2</sup> It is named after the British epidemiologist Archie Cochrane (1909-1988). In his landmark book, *Effectiveness and Efficiency: Random Reflections on Health Services*, published in 1972,<sup>3</sup> Cochrane challenged the medical community to organize

a critical summary by specialty, to be updated periodically, of all relevant randomized controlled trials (RCTs). He argued that such summaries would facilitate a more timely and efficient transfer of research evidence into practice and would provide the basis for a more rational allocation of resources toward known effective treatments.

The Cochrane Collaboration was established in response to Archie Cochrane's challenge. Since its inception in 1992, the Cochrane Collaboration has had phenomenal growth. As of January 1997, there were 29 Collaborative Review Groups<sup>4</sup> coordinating reviews in specific areas such as stroke, pregnancy and childbirth, schizophrenia, and musculoskeletal disorders. In this article, we describe the Back Review Group for Spinal Disorders recently created as a subgroup of the Cochrane Musculoskeletal Review Group.

In addition to the Collaborative Review Groups, Cochrane Centres have been established worldwide. The Cochrane Centres provide a coordinating and supportive role to the Collaborative Review Groups. The type of support provided by the Cochrane Centres varies from location to location. The United Kingdom center, for example, developed a software package called Review Manager (RevMan),<sup>5</sup> to assist in the preparation of reviews, whereas the Canadian center is working on Internet communications across the Cochrane Collaboration network. Most Cochrane Centres organize workshops in their countries to assist people who undertake the systematic reviews. The workshops cover a variety of methodologic topics such as search strategies, adequacy of research design (randomization, blinding, sample size), methods of pooling data across trials, tests of homogeneity, etc. There are currently four Cochrane Centres in the United States and one in Canada, Italy, Brazil, The Netherlands, Denmark, the United Kingdom, Australia, France, and South Africa.

The major products of the Cochrane Collaboration are the completed systematic reviews. The editorial teams of the Collaborative Review Groups are responsible for assembling reviews on specific topics in their respective areas into a standardized module using Module Manager<sup>6</sup> (ModMan) software. These are then incorporated into the *Cochrane Database of Systematic Reviews*

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**Table 1. Protocols and Reviews of the Back Review Group for Spinal Disorders Published in the Cochrane Database of Systematic Reviews (CDSR)**

Full Title	Authors
<b>Review in CDSR</b>	
The Effectiveness of Transcutaneous Electrical Nerve Stimulation (TENS) and Acupuncture-like Transcutaneous Electrical Nerve Stimulation (ALTENS) in the Treatment of Patients with Chronic Low Back Pain.	Gadsby JG and Flowerdew MW
<b>Protocols in CDSR</b>	
Spinal Manipulation for Low Back Pain	Assendelft WJ, Shekelle PG and Koes BW
Conservative Management of Mechanical Neck Disorders. Part one: Manual Therapy	Aker PD, Gross AR, Goldsmith CH, and Peloso P
Conservative Management of Mechanical Neck Disorders. Part two: Physical Medicine Modalities	Gross AR, Aker PD, Goldsmith CH, and Peloso P
Conservative Management of Mechanical Neck Disorder. Part three: Drug Therapies	Peloso P, Gross AR, Aker PD, and Goldsmith CH
Conservative Management of Mechanical Neck Disorders. Part four: Patient Education	Gross AR, Aker PD, Goldsmith CH, and Peloso P
The Surgical Management of Lumbar Disc Prolapse	Gibson JNA and Waddell G
The Surgical Management of Degenerative Lumbar Spondylosis	Gibson JNA and Waddell G
Injection Therapy for Patients with Chronic Benign Low Back Pain	de Bie R, Nelemans P, de Vet H, and Sturmans H

(CDSR) which is disseminated as part of an electronic journal—the *Cochrane Library*.

#### ■ The Back Review Group for Spinal Disorders: Activities

The Back Review Group was recently organized, with Dr. Claire Bombardier and Dr. Alf Nachemson as co-editors. Funding was obtained from the Swedish Council on Technology Assessment in Health Care and the Institute for Work & Health in Ontario, Canada, to provide a small infrastructure. An international editorial board was established and a part-time coordinator was recruited in April 1996. The editorial board members include: Dr. Richard Deyo and Dr. Paul Shekelle (United States), Dr. Lex Bouter and Mr. Rob de Bie (The Netherlands), Dr. Gordon Waddell and Dr. Martin Roland (United Kingdom), and Dr. Francis Guillemin (France). The co-editors meet regularly and communicate through conference calls with the editorial board members. The first full meeting of the editorial board will take place at the Forum for Primary Care Research on Low Back Pain, being held in The Netherlands in May 1997.

A number of organizational and methodologic issues are currently being addressed by the Back Review Group for Spinal Disorders. Its first task was to define its scope. The group agreed it would “coordinate reviews of randomized controlled trials and controlled clinical trials of primary and secondary prevention of neck pain, back pain, and other spinal disorders, excluding inflammatory diseases and fractures.” The latter two subjects are handled by other Cochrane Review Groups.

The second task is to propose guidelines and minimum requirements for a Cochrane review of back and neck interventions. These guidelines should be useful to individuals interested in preparing a protocol for a Cochrane review. Methodologic issues of search strategies, criteria for inclusion of studies, data extraction, methods of quality assessment, and statistical pooling

will be addressed by the editorial board. The formulation of a consensus paper addressing these minimum standards will be the focus of the editorial board meeting in the Netherlands in May 1997.

#### ■ The Back Review Group for Spinal Disorders: Protocols and Reviews

In addition to the editorial board, approximately 40 interested individuals have been identified worldwide. Several of these individuals are currently engaged in systematic reviews of therapies for neck and back pain. The process for submitting a Back Review Group review into the Cochrane Library is analogous to the peer-review process (Figure 1). The first step for interested reviewers is to submit to the Back Review Group co-editors the title of a topic they would like to review. This title is approved if it falls under the scope of the group and is not already being reviewed within the Collaboration. Reviews are to be undertaken by more than one individual and preferably by teams with international representation, including methods and content experts and preferably with previous experience with systematic reviews. Once the title is approved, the reviewers prepare a protocol using the guidelines outlined in the Cochrane Handbook<sup>7</sup> and the RevMan software.<sup>5</sup> This protocol is submitted to the Back Review Group Editorial Board and to the Musculoskeletal Review Group Editorial Board. If approved, it is published in the CDSR. When the review itself is completed, it undergoes a similar process. If final editorial approval is granted, the review is also published in the CDSR. As with all Cochrane reviews, the reviewers undertake a lifelong responsibility to maintain and update their reviews as new information becomes available. The CDSR is a useful source of summary information about a given area relevant to a variety of stakeholders, including clinicians, patients, the public at large, industry, payers, and government. In addition, many of the Cochrane reviews are also published in traditional scientific jour-



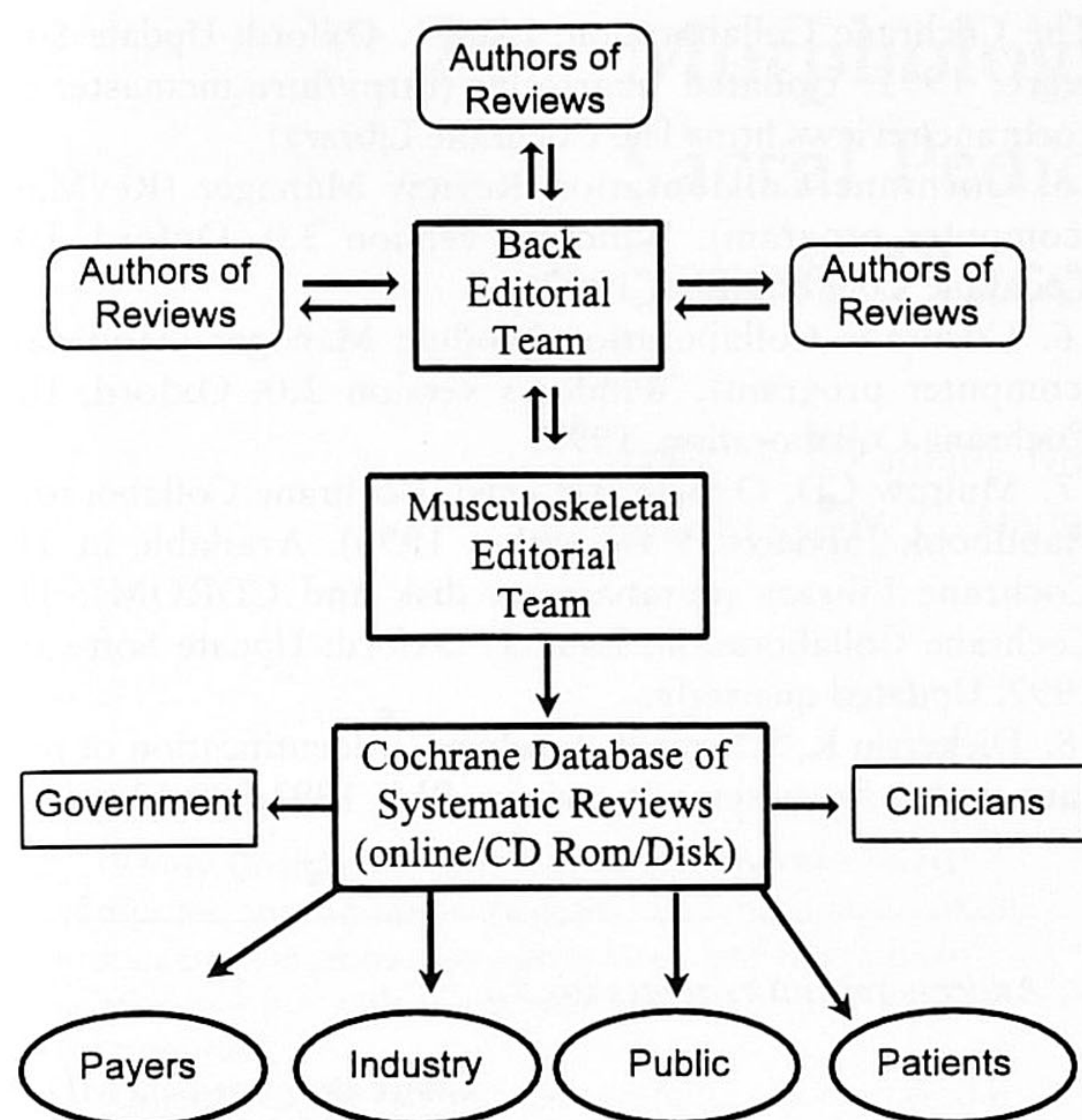


Figure 1. Organization of the Cochrane Back Review Group for Spinal Disorders.

nals. For example, many of the back reviews will be published concurrently in *Spine*.

The Back Review Group for Spinal Disorders currently has one completed review published in the CDSR entitled, "The Effectiveness of Transcutaneous Electrical Nerve Stimulation (TENS) and Acupuncture-like Transcutaneous Electrical Nerve Stimulation (ALTENS) in the treatment of patients with chronic low back pain." Another eight approved protocols have also been published in the CDSR (Table 1), and there are an additional six protocols currently in progress (Table 2).

### ■ The Back Review Group for Spinal Disorders: Back and Neck Trials Registry

Only approximately half of the RCTs available in Medline are retrievable by routine searches. In addition, Medline contains less than half of all published RCTs.<sup>8</sup> For this reason, an important activity of the *Cochrane Review Groups* also includes a systematic hand search of

key journals for RCTs in Medline that are not tagged as RCTs or for RCTs not included in Medline. The Back Review Group for Spinal Disorders has initiated hand searching of the *Spine* journal to assist in the development of a "back and neck trials" registry. This registry will maintain all the randomized controlled trials and controlled clinical trials in back and neck disorders. These trials will also be part of the Cochrane Clinical Trials Registry in the *Cochrane Library*. Access to this specialized registry will be available through the *Cochrane Library* and the Institute for Work & Health Internet Web site (<http://www.iwh.on.ca>) by mid-1998.

### ■ The Cochrane Library

The *Cochrane Library* is an electronic journal published quarterly and available on CD-ROM (Available from: Jane Green, Update Software, PO Box 698, Oxford, OX2 7YX, UK, tel: +44 (0) 1865 513902, fax: +44 (0) 1865 516198, e-mail: [update@cochrane.co.uk](mailto:update@cochrane.co.uk)). It is also accessible online through the Internet (<http://www.medlib.com>), and it includes the *Cochrane Database of Systematic Reviews (CDSR)* which is a repository of all Cochrane reviews undertaken to date. Reviews are maintained and updated periodically and provide a valuable source of evidence for the effectiveness of a large number of therapies in a wide variety of clinical areas.

This library also includes the *Cochrane Clinical Trials Registry*, a bibliography of more than 70,000 controlled trials identified by contributors to the Cochrane Collaboration; the *York Database of Abstracts of Reviews of Effectiveness*, a database of structured abstracts of more than 1,000 non-Cochrane systematic reviews from around the world; and a smaller database, the *Cochrane Review Methodology Database*, a database of citations on the methods of conducting systematic reviews.

### ■ An Invitation to Participate

To keep up-to-date with the evidence from the literature, much collaboration is needed. The *Cochrane Collaboration* is not a government- or payer-sponsored initiative, but it is a voluntary, charitable organization that brings together a dedicated group of researchers and clinicians. Individuals and institutions will have to contribute effort

Table 2. Protocols and Reviews of the Back Review Group for Spinal Disorders in Progress

Full Title	Authors
<b>Protocols in Progress</b>	
Epidural Steroid Injections and the Management of Low Back Pain: A Systematic Review and Meta-analysis	Haselkorn JK, Ciol MA, Rapp SA, Elam K, and Deyo RA
The Effect of Low-level Laser Therapy in Musculoskeletal Pain: A Meta-Analysis	Gam NA, Thorsen H, and Lonnberg F
The Effectiveness of Exercise Therapy for Low Back Pain: A Systematic Review and Meta-analysis	van Tulder MW, Malmivaara A, Esmail R, and Koes BW
The Effectiveness of Non-steroidal Anti-inflammatory Drugs (NSAIDs) in the Treatment of Low Back Pain	van Tulder MW, Koes BW, and Deyo RA
The Effectiveness of Back Schools in the Treatment of Low Back Pain	van Tulder MW, Esmail R, Bombardier C, and Koes BW
Multidisciplinary Teams in Chronic Low Back Pain	Guzman J, Esmail R, Irvin E, and Bombardier C



and resources. Reviews need to be undertaken, and this should be done in a collaborative way, preferably by a wide range of individuals. We also need volunteers to search the backlog of journals to create the registry of randomized and controlled clinical trials of back and neck therapies. We particularly welcome those who can search non-English journals. For more information on the Back Review Group for Spinal Disorders or on the *Cochrane Collaboration*, please contact the Back Review Group coordinator, Rosmin Esmail, at the Institute for Work & Health, telephone: (416) 927-2027, fax: (416) 927-4167, e-mail: resmail@iwh.on.ca, or visit the *Cochrane Collaboration* home page at <http://hiru.mcmaster.ca/cochrane>.

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